

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Currently amended): An isolated and purified polynucleotide sequence that is a portion of the flaA coding region of Campylobacter, said polynucleotide sequence consisting essentially of nucleotides 1 – 999 of the DNA SEQ ID NO:1, said polynucleotide encoding an immunogenic polypeptide.

Claim 2 (withdrawn): A recombinant FlaA polypeptide consisting of all or a portion of amino acid sequence SEQ ID NO:2.

Claim 3 (Currently amended): An isolated and purified DNA sequence encoding an immunogenic polypeptide consisting essentially of amino acid residues 1-333 of amino acid sequence of SEQ ID NO:2.

Claim 4 (Canceled): An expression system consisting of an expression vector wherein the polypeptide of Claim 1 is inserted.

Claim 5 (Canceled): The expression system of Claim 4 wherein the expression vector is selected from the group consisting of plasmid and viral and E.coli expression vectors.

Attny Docket No. 78,560

Claim 6 (Canceled): An expression system of Claim 5 wherein the plasmid vector is selected from the group consisting of pMal-c2, pMal-p2 and pET.

Claim 7 (Canceled): An expression system of Claim 4 wherein the viral expression vector of Claim 5 is selected from the group consisting of adenovirus, M13, herpesvirus, vaccinia virus and baculovirus.

Claim 8 (Withdrawn): A method for inducing an immune response to FlaA comprising administering the polypeptide of Claim 2 to a subject.

Claim 9 (Withdrawn): The method of Claim 8 wherein the polypeptide is administered in conjunction with other known vaccines to form a multivalent formulation.

Claim 10 (Withdrawn): The method of Claim 8 wherein the polypeptide is administered as an injectable formulation.

Claim 11 (Withdrawn): The method of Claim 8 wherein the polypeptide is administered as an intranasal formulation.

Claim 12 (Withdrawn): The method of Claim 8 wherein the polypeptide is administered as an oral formulation.

Claim 13 (Withdrawn): The method of Claim 8 wherein administering the polypeptide

Attny Docket No. 78,560

to subjects has no or reduced ability to induce GBS.

Claim 14 (Withdrawn): A method of reducing campylobacter intestinal colonization in a subject, said method comprising administering an immunogenically effective amount of MBP-FlaA with or without an adjuvant.

Claim 15 (Withdrawn): A method of reducing campylobacter intestinal colonization in a subject, said method comprising administering an immunogenically effective amount of MBP-FlaA + LT_{R192G}.

Claim 16 (Currently amended) A recombinant expression vector system comprising the polynucleotide of Claim 1, wherein said polynucleotide is operatively linked and expressed in The polynucleotide sequence of Claim 1, wherein said sequence is expressed in an expression system comprising a DNA expression vector selected from the group consisting of plasmid and viral and E. coli expression vectors.

Claim 17 (Currently amended): The recombinant expression vector system polynucleotide sequence of Claim 16, wherein said expression system comprises an E. coli gene encoding maltose binding protein, said polynucleotide sequence being fused to said gene and said gene being contained in an expression vector.

Claim 18 (Currently amended) An immunogenic composition comprising:
an isolated and purified polynucleotide sequence consisting

Attny Docket No. 78,560

essentially of nucleotides 1- 999 of SEQ ID NO. 1 encoding an immunogenic polypeptide consisting essentially of amino acid residues 1 - 333 of SEQ ID NO. 2 wherein said polynucleotide is operatively linked to an expression system selected from the group consisting of plasmid, viral and *E. coli* expression vectors and wherein said expression system is capable of being expressed in competent bacterial cells selected from the group consisting of *E. coli*, *Shigella* and *Salmonella*.

Claim 19 (Currently amended): The immunogenic composition of Claim 18, wherein said expression system comprises an *E. coli* gene encoding maltose binding protein, said polynucleotide sequence being fused and operatively linked to said gene ~~and said gene being contained in an expression vector.~~

Claim 20 (Previously presented): The immunogenic composition of Claim 19, further comprising an adjuvant.

Claim 21 (Previously presented): The immunogenic composition of Claim 20, wherein said adjuvant is a non-toxigenic form of heat labile *E. coli* enterotoxin.

Claim 22 (Currently amended) A bivalent immunogenic composition comprising: an isolated and purified polynucleotide sequence consisting essentially of nucleotides 1 - 999 of SEQ ID NO. 1 encoding an immunogenic polypeptide consisting essentially of amino acid residues 1 - 333 of SEQ ID NO. 2[:] wherein said polynucleotide is operatively linked to[;] an expression system selected from the group consisting of

plasmid, viral and *E. coli* expression vectors[;] and a carrier strain consisting of live, attenuated bacteria wherein said bacteria is modified capable of to express expressing said polynucleotide sequence encoding said polypeptide.

Claim 23 (Currently amended): The bivalent immunogenic composition of Claim 22, wherein said expression system comprises an *E. coli* gene encoding maltose binding protein, said polynucleotide sequence being fused to said gene and said gene being contained in an one of said expression vectors.

Claim 24 (Previously presented): The bivalent immunogenic composition of Claim 22, wherein said carrier strain comprises *Salmonella* or *Shigella*.

Claim 25 (Canceled): The polynucleotide sequence of Claim 1 encoding said immunogenic polypeptide that has reduced or no induction of Guillain-Barre Syndrome.

Claim 26 (Withdrawn): The immunogenic polypeptide of Claim 3 that has reduced or no induction of Guillain-Barre Syndrome.

Claim 27 (Canceled): The isolated and purified polynucleotide sequence of Claim 16, wherein said sequence is useful in reducing colonization of *Camplyobacter*.

Claim 28 (Currently amended): The isolated and purified DNA sequence of Claim 3,
wherein said encoded polypeptide is useful in reducing colonization of Camplyobacter

DEC-07-2004 15:09

CNSL NAV MED RSCH

301 295 6480 P.08/19

Attny Docket No. 78,560

The immunogenic composition of claim 18 wherein said polypeptide is capable of
reducing colonization of Campylobacter when administered as a vaccine.